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ABSTRACT

A study was conducted to determine whether informal group assessment instruments could be used effectively to provide the same type of reading achievement information as that secured from informal individual instruments. The researchers developed group instruments comparable to individual instruments, including a group reading inventory for grades 1 through 12, cloze inventory for the same grades, specific comprehension skills assessments, and specific study skills assessments. The Group Reading Inventory (GRI) and published Individual Reading Inventory (IRI) were administered to 312 students who were expected to have reading levels ranging from the preprimer level to grade 12. The results of the two inventories were then analyzed to determine the amount of correlation between the functional reading levels of each. There was a statistically significant correlation between the scores on the GRI and on the IRI. Findings suggest that since both kinds of inventories tend to diagnose comparable functional reading levels, the GRI is a valid alternative to the IRI for assessing reading levels, and at a considerable saving of class time. (HTH)

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INFORMAL ASSESSMENT IN READING
GROUP VS INDIVIDUAL

For years teacher trainers have encouraged preservice and inservice teachers to utilize individual informal reading inventories to assess students' functional reading levels. Although most teachers know how to carry out this type of assessment, they don't do so because of the time involved. Assessment instruments available for groups are usually standardized and therefore tend not to produce the specificity of results needed for program planning for individual students in the classroom.

The purpose of this study was to determine if informal group assessment instruments could be used effectively to provide the same type of information secured from informal individual instruments. Group instruments comparable to individual instruments needed to be developed and tested in order to determine the feasibility of using group instruments for assessment of functional reading levels and skills.

The authors developed group assessment inventories over a three year period through repeated field testing, revisions and computer analysis. These inventories included a group reading inventory for grades 1-12; a

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cloze inventory for grades 1-12; specific comprehension skills assessments; and specific study skills assessments.

Development and Validation of Group Reading Inventory

Since an informal individual reading inventory (IRI) consists of graded passages and accompanying comprehension questions, the informal group reading inventory (GRI) was also developed utilizing graded passages and accompanying comprehension questions. Whereas the IRI comprehension questions must be asked orally and individually by the teacher, the GRI comprehensions were developed in a multiple choice format where the teacher reads the questions to the class and students mark their choice of answers individually on response sheets following silent reading of the passages.

Most published informal reading inventories are constructed of passages that are excerpts from a longer selection, which leaves readers wondering about the conclusion of the story. For this reason, the stories in the GRI were written as original stories designed to offer closure for the reader or, at least, a feeling of completeness. Passages of 53 to 228 words were written for the preprimer through grade twelve levels. The content of the stories was based on the reading interests of students at the various age levels with attempts to choose topics that would be of interest to both males and females.

The Harris-Jacobson Readability Formulas for levels

preprimer through seventh grade and the Dale-Chall Readability Formula for grades eight to twelve were used to check the readability levels of the stories. The readability estimates yielded by these formulas are in Table I. Since the formulas yield a predicted score which must be converted to a readability level, both the predicted and readability scores are given.

TABLE I Readability Estimates for GRI Stories

	HARRIS-JACOBSON FORMULA		DALE-CHALL FORMULA	
Story	Predicted	Readability	Predicted	Readability
1	1.32	Preprimer		
2	1.68	Primer		
3	1.76	First Reader		
4	2.19	Second		
5	3.24	Third		
6	4.26	Fourth		
7	5.13	Fifth		
8	5.46	Sixth		
9	6.88	Seventh		
10			6.18	7-8
11			7.72	9-10
12			7.84	9-10
13			8.74	11-12
14			8.99	11-12

The questions for each GRI passage were constructed to encompass those areas of comprehension that are included most frequently in reading programs and that are deemed to be important by classroom teachers. Those

comprehension skills addressed by the questions were determined through collecting data from teachers concerning the relative importance of specific skills at particular grade levels. These teachers also contributed data revealing the priority the skills had in their reading programs and the frequency with which the skills were included in commonly used basal readers.

Fifty teachers of reading, classroom teachers grades 1-12, and college instructors read the GRI questions to evaluate the specific comprehension skill or study skill each question demanded of the reader. The questions were revised on the basis of their comments.

To assess the dependency of the questions on the passage, two hundred undergraduate students, graduate students, and reading specialists were asked to answer the questions without reading the appropriate passage. Those questions that apparently could be answered were eliminated and/or changed until 80% of the readers were unable to answer the questions before reading the story.

The Betts criteria for determining functional reading levels from performance on an informal reading inventory are traditionally used; therefore, those criteria were adapted for the GRI. Since the GRI offers only a comprehension score from silent reading, only the Betts criteria concerning comprehension are applicable. The GRI criteria for determining levels, then, are the

same as the Betts comprehension criteria for the independent and instructional levels. The GRI criterion for determining the frustration level is any score lower than 75% rather than the Betts criterion of 50%. The authors choose this conservative view regarding the identification of the frustration level. Table II below contains the criteria used to determine functional reading levels when using the GRI.

TABLE II GRI Functional Reading Levels

independent reading level	90-100% comprehension
instructional reading level	75-89% comprehension
frustration reading level	less than 75% comprehension

Informal reading inventories traditionally are not analyzed to ascertain the reliability and validity; however, the GRI was tested to determine its validity when compared to a widely used published informal reading inventory designed to be administered individually. It was not possible to test the GRI for reliability.

The GRI was administered to 312 students who were expected to have reading levels that ranged from the preprimer level to grade twelve. This testing was done

by reading specialists, advanced graduate students earning a doctorate in reading, graduate students enrolled in reading courses, and undergraduate students completing a minor in reading and enrolled in a practicum for the teaching of reading in a classroom. A published IRI was also administered to the same students who were given the GRI. The same procedure for determining the pupils' reading levels was applied to the results of both inventories. The Kappa Index of Agreement was applied to the results to determine the proportion of agreement between the average or mean levels assigned by the GRI and the IRI. This comparison in Table III indicates that the agreement is at a significant level.

TABLE III Kappa Index

	Independent Level	Instructional Level	Frustration Level
GRI	1.9	3.0	4.1
IRI	1.5	3.0	4.4

The inventory results were then analyzed, using Spearman's rho correlation, to determine the amount of correlation between the functional reading levels determined by the GRI and the IRI.

These correlations given in Table IV indicate that

there is a statistically significant correlation between the scores on the GRI and on the IRI. In other words, a student is likely to score at the same functional reading levels on the GRI as he or she would on an IRI. Readers are reminded, however, that the time involved in administering a GRI to a class is much less than the time required for administering an IRI.

TABLE IV Correlation IRI vs. GRI

	Correlation
Independent Level	.77
Instructional Level	.53
Frustration Level	.52

Development and Validation of the Cloze

Another widely used group assessment instrument for determining functional reading levels is the cloze. For this reason cloze passages were also constructed, validated and compared to the GRI assessment results.

Topics for the original passages in the cloze were chosen to coincide with interests of elementary children or with subject matter for middle and secondary students. Passages range in length from 102 words at the primer level to 395 words at the twelfth-grade level. The readability level of all passages was determined through the use of the Fry Readability Graph.

Initial and final sentences were kept intact in all passages. Every fifth word was deleted and replaced with a standard length line in all other sentences. The passages were constructed in such a way that deleted words were often used in surrounding sentences to provide context clues to the missing word.

It was found during the developmental use of the cloze that words such as which, that, a, an, and the were often used interchangeably by students taking the test. Although these variations were not scored as correct by the authors in the validation of the test, they were noted as frequent responses.

Over the years, the functional reading level criteria have varied slightly from researcher to researcher and the current consensus appears to be the same as that used in the development of the cloze: that is, 40% to 60% accuracy for an instructional level, greater than 60% accuracy for an independent level, and less than 40% accuracy for a frustration level.

The completed cloze was given to classroom groups in grades one to twelve by teachers enrolled in graduate level reading courses. It was also administered by undergraduate reading education minors to groups of students in conjunction with a practicum in the teaching of reading in a classroom. These students also administered the GRI and an IRI. Validation work was done on the compilation

of these results.

A Spearman rho computed to determine the correlation between the GRI, the Cloze, and the IRI was .99. Individual students' functional reading levels as determined by both the GRI and Cloze also correlated at .99. There are, however, variations in the independent, instructional, and frustration levels of students between the tests. Eight percent of the students had differences in these levels of more than one grade level; 22% of the students had differences in their reading levels of one grade level, and 70% of the students obtained exactly the same functional reading levels on both the GRI and the Cloze. For the 22% of students who had a variation between the measures, they were at the same interval in almost all the cases, with that interval being one grade level lower on the Cloze. For the 8% of the students who have a variation in test results of more than one grade level, the scores were sometimes very different - perhaps four or five levels different. This variation caused the authors to believe that test results for these students were invalid. The authors speculate that the cognitive task required on the Cloze was a very new kind of task for these students; therefore, they did not perform well.

Summary and Conclusions

Administering an IRI to determine functional reading levels may take as much as 30 to 45 minutes per student. When assessing a class of 30 students, this translates to approximately 15 to 22 hours of class time devoted to diagnosis. A GRI administered to determine functional reading levels may take from a half hour to one and a half hours for a class of 30 students. This study found that a significant correlation exists between the results of a GRI and an IRI; therefore, the GRI is a valid alternative for assessment of functional reading levels at a considerable savings of class time.

Since the Cloze and GRI have positive correlation, and the GRI correlates well with a published IRI, there is evidence to support the belief that the Cloze is a viable alternative to individual testing and that it is a valid measure.

This study appears to offer one solution to the time element dilemma of classroom assessment in grades 1-12. Teachers now should be better able to determine students' needs and consequently plan more appropriate instructional programs.

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